

Amendments to the Claims:

Claims 1-16.(Cancelled).

17.(**Currently Amended**) A method of operating a combustion system having an electrostatic precipitator (ESP) and a selective catalytic reduction (SCR) system **stack** to lower the acid dewpoint temperature of **the** flue gas and ~~optimize ESP function~~, the method comprising the steps of:

- a) ~~— determining if the SCR system is to be by-passed;~~
 - b) ~~— by passing the SCR system if the SCR system is determined to be by-passed;~~
 - e) partially combusting the fuel in a first stage to create a chemically reducing environment in situ;
 - d) adjusting the reducing environment for a sufficient time period such that the flue gas acid dewpoint **temperature** is lowered to a desirable level **temperature lower than the temperature of flue gas traveling through the stack** by reducing SO₃ formed during combustion to SO₂ by electron addition to create an SO₃ concentration configured to improve ESP function; and;
 - e) combusting the remainder of the fuel and combustion intermediates in a second stage with **an** oxidizing environment, wherein residence time in the oxidizing environment is selected to maintain the SO₃ concentration substantially within a range desirable for ESP function;
- thereby lowering the acid dewpoint temperature of the flue gas by reducing the acid concentration of the flue gas and optimizing ESP function.

18.(**Currently Amended**) The method of claim 17, further including the step of micro-staging the first stage fuel combustion.

19.(Original) The method of claim 18, wherein the micro-staging is provided through the use of low-NOx burners.

20.(Currently Amended) The method of claim 17, ~~further~~ including the step of macro-staging the first stage of fuel combustion.

21.(Original) The method of claim 20, wherein the macro-staging is provided through the use of over-fired air.

22.(Currently Amended) The method of claim 17, ~~further~~ including a combination of micro-staging and macro-staging.

23.(Original) The method of claim 22, wherein the micro-staging is provided by low-NOx burners and the macro-staging is provided by over-fired air.

24.(Original) The method of claim 17, wherein the fuel is coal.

25.(Currently Amended) A method of operating a combustion system to decrease the acid dewpoint temperature of its flue gas to a temperature lower than the temperature of flue gas traveling through a stack of the combustion system ~~having an electrostatic precipitator (ESP) and a selective catalytic reduction (SCR) system,~~ the method comprising the steps of:

- a) partially combusting the fuel in a first stage to create a chemically reducing environment in situ;
- b) combusting the remainder of the fuel and combustion intermediates in a second stage with oxidizing environment;
- e) measuring the acid dewpoint of the flue gas;
measuring the temperature of the flue gas traveling through the stack;
- d) ~~determining if the SCR system is in operation;~~
- e) ~~if the SCR system is not in operation,~~ if the measured acid dewpoint temperature is higher than the measured flue gas temperature, adjusting the reducing environment for a sufficient time period such that SO₃ formed during combustion is reduced to SO₂ by electron addition to ~~create an SO₃ concentration configured to improve~~

ESP function; thereby decreasing the acid dewpoint temperature of the flue gas and optimizing ESP function.

26.(**Currently Amended**) The method of claim 25, further including the step of micro-staging the first stage fuel combustion.

27.(Original) The method of claim 26, wherein the micro-staging is provided through the use of low-NOx burners.

28.(**Currently Amended**) The method of claim 25, further including the step of macro-staging the first stage of fuel combustion.

29.(Original) The method of claim 28, wherein the macro-staging is provided through the use of over-fired air.

30.(**Currently Amended**) The method of claim 25, further including a combination of micro-staging and macro-staging.

31.(Original) The method of claim 30, wherein the micro-staging is provided by low-NOx burners and the macro-staging is provided by over-fired air.

32.(Original) The method of claim 25, wherein the fuel is coal.

33. (**Currently Amended**) The method of claim 17, wherein SO₃ concentration is adjusted to about 15 to 20 ppm at an ESP component of the combustion system, thereby optimizing ESP function.

34.**(Currently Amended)** The method of claim 25, wherein SO₃ concentration is adjusted to about 15 to 20 ppm **at an ESP component of the combustion system, thereby optimizing ESP function.**